The effect of intrathecal diamorphine compared to intrathecal fentanyl on post - operative analgesia for elective caesarean section

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Key Points

- Intrathecal diamorphine is recommended by the Association of Anaesthetists for Elective Caesarean Section (ECS).[1]
- Superior postoperative analgesia is provided with intrathecal diamorphine when compared to shorter acting opiates such as fentanyl.[2]
- Intrathecal diamorphine can reduce additional opiate requirement and therefore systemic side effects.[2]
- Adequate postoperative analgesia following ECS is important for optimal maternal and neonatal outcomes.[1]

Introduction

- This quality improvement project compared the effects of a change in practice in a district general hospital from the use of intrathecal fentanyl to intrathecal diamorphine as the adjunct for spinal anaesthesia on post-operative analgesia for women undergoing ECS.
- An initial audit, followed by the change in practice and then a re-audit was done to complete the audit loop.

References

1. Roofthooft E, Joshi GP,Rawal N, Van de Velde M. PROSPECT guideline for elective caesarean section: updated systematic review and procedure-specific postoperative pain management recommendations. Anaesthesia. 2020;76: 665-680. https://doi.org/10.1111/anae.15339
2. Lane S, Evans P, Arfeen Z, Misra U. A comparison of intrathecal fentanyl and diamorphine as adjuncts in spinal anaesthesia for Caesarean section. Anaesthesia. 2005; 60: 453-457. https://doi.org/10.1111/j.1365-2044.2005.04175.x



Methods

Retrospective audit of women undergoing ECS:

- Post-operative pain scores
- Opiate consumption
- Satisfaction scores

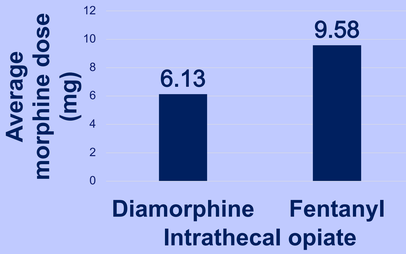
48 women
Intrathecal fentanyl
December 2020 – March 2021

49 women
Intrathecal diamorphine
June - October 2021

Results

- There was a statistically significant reduction in average post-operative morphine dose.

(p value 0.009)



- Average maximum pain scores were similar - 4.97/10 in the diamorphine group and 5.3/10 in the fentanyl group.
- All those asked were satisfied with their anaesthetic care.

Discussion

- The change to intrathecal diamorphine from fentanyl improved postoperative analgesia for ECS in a district general hospital, reducing postoperative opiate requirements
- This is in keeping with previous research.[1,2]
- Optimal postoperative analgesia following ECS is imperative as postoperative pain can detrimentally impact recovery, maternal bonding, breastfeeding success, and satisfaction.[1]